```
ISIS4804.ST25.txt
                          SEQUENCE LISTING
       TRADE
       Manoharan, Muthiah
<110>
      Maier, Martin A.
      Prakash, Thazha P.
Rajeev, Kallanthottathil Gopalan
<120> Nuclease Resistant Chimeric Oligonucleotides
<130> ISIS-4804
<140> 09/996,292
<141> 2001-11-28
<160> 55
<170> PatentIn version 3.1
<210>
       1
<211>
       20
<212> DNA
<213> Artificial Sequence
<220>
<223> Completely synthetic sequence
<220>
<221> misc_feature
<222>
       (1)...(20)
<223> A11 P=S
<220>
       misc_feature
<221>
<222>
       (1)..(1)
<223>
       N= L-Thymidine
<220>-
<221> misc feature
       (20)..(20)
N= L-Thymidine
<222>
<223>
<400> 1
ngcatcccc aggccaccan
```

<210> 17 <211>

<212> DNA

<213> Artificial Sequence

<220>

Completely synthetic sequence <223>

<220>

<221> misc_feature

<222> (1)...(17)

<223> All P=S

<220>

misc_feature <221>

(1)...(1)

N= L-Thymidine

<220>

<221> misc_feature

<222> <223>

```
<222> (2)..(3)
<223> N= 2'-O-MOE 5meC
<220>
<221> misc_feature
<222> (15)..(15)
<223> N= 2'-O-MOE A
<220>
<221> misc_feature
<222> (16)..(16)
<223> N= 2'-O-MOE 5meU
<220>
<221> misc_feature
<222> (17)..(17)
<223> N= L-Thymidine
<400> 2
nnncgctgtg atgcnnn
<210> 3
<211> 20
<212> DNA
<213> Artificial Sequence
<220>
<223> Completely synthetic sequence
<220>
<221> misc_feature
<222> (1)..(20)
<223> A11 P=S
<220>
<221> misc_feature <222> (1)..(1)
<223> N= L-Thymidine
<220>
<221> misc_feature
<222> (2)..(3)
<223> N= 2'-O-MOE 5meC
<220>
<221> misc_feature
<222> (13)..(14)
<223> N= 2'-O-MOE 5meC
<220>
<221> misc feature
<222> (15)..(15)
<223> N= 2'-O-MOE 5meU
<220>
<221> misc_feature
<222> (16)..(16)
<223> N= 2'-O-MOE 5meC
```

```
ISIS4804.ST25.txt
<220>
<221> misc_feature
<222> (17)..(17)
<223> N= 2'-O-MOE A
<220>
<221> misc_feature
<222> (18)..(19)
<223> N= 2'-O-MOE G
<220>
<221> misc_feature
<222>
         (20)...(20)
<223> N= L-Thymidine
<400> 3
nnngtcatcg ctnnnnnnn
```

20

<210> 4 <211> 20 <212> DNA <213> Artificial Sequence <220> <223> Completely synthetic sequence

<220>

<221> misc_feature <222> (1)..(20) <223> All P=S

<400> 4 tgcatcccc aggccaccat

20

<210> 5 <211> 20 <212> DNA <213> Artificial Sequence <220> <223> Completely synthetic sequence <220>

<221> misc_feature <222> (1)..(20) <223> All P=S

<220> <221> misc_feature <222> (1)..(1) <223> N= L-Thymidine

<220> <220>
<221> misc_feature
<222> (20)..(20)
<223> N= L-Thymidine

<400> 5 ngcatcccc aggccaccan

<210> 6

```
<211> 17
<212> DNA
<213> Artificial Sequence
<220>
<223> Completely synthetic sequence
<220>
<221> misc_feature
<222>
          (1) . . (17)
<223> All P=S
<400> 6
                                                                                                          17
tcccgctgtg atgcatt
<210> 7
<211> 17
<212> DNA
<213> Artificial Sequence
<220>
<223> Completely synthetic sequence
<220>
<221> misc_feature
<222> (1)..(17)
<223> All P=S
<220>
<221> misc feature
<222> (1)..(1)
<223> N= L-Thymidine
<220>
<221> misc_feature
<222> (2)..(3)
<223> N= 2'-O-MOE 5meC
<220>
<221> misc_feature
<222> (15)..(15)
<223> N= 2'-O-MOE A
<220>
<221> misc_feature
<222> (16)..(16)
<223> N= 2'-O-MOE 5meU
<220>
<221> misc_feature
<222> (17)..(17)
<223> N= L-Thymidine
<400> 7
nnncgctgtg atgcnnn
                                                                                                          17
<210> 8
<211> 20
<212> DNA
<213> Artificial Sequence
```

```
<220>
<223> Completely synthetic sequence
<220>
<221> misc_feature
<222> (1)..(20)
<223> All P=S
<220>
<221> misc_feature
<222> (1)..(1)
<223> N= L-Cytidine
<220>
<221> misc_feature
<222> (2)..(2)
<223> N= 2'-O-MOE 5meU
<220>
<221> misc_feature
<222> (3)..(3)
<223> N= 2'-O-MOE A
<220>
<221> misc_feature
<222> (4)..(4)
<223> N= 2'-O-MOE G
<220>
<221> misc_feature
<222> (5)..(5)
<223> N= 2'-O-MOE A
<220>
<221> misc_feature
<222> (16)..(16)
<223> N= 2'-O-MOE 5meU
<220>
<221> misc_feature
<222> (17)..(17)
<223> N= 2'-O-MOE 5meC
<220>
<221> misc_feature
<222> (18)..(18)
<223> N= 2'-O-MOE G
<220>
<221> misc_feature
<222> (19)..(19)
<223> N= 2'-O-MOE 5meU
<220>
<221> misc feature
<222> (20)..(20)
<223> N= 2'-O-MOE 5meC
```

20

```
<400> 8
nnnnttcca cactcnnnnn
<210> 9
<211> 20
<211> 20
<212> DNA
<213> Artificial Sequence
<220>
<223> Completely synthetic sequence
<220>
<221> misc_feature
<222> (1)..(20)
<223> All P=S
<220>
<221> misc_feature
<222> (1)..(1)
<223> N= 2'-O-MOE 5meC
<220>
<221> misc_feature
<222> (2)..(2)
<223> N= 2'-O-MOE 5meU
<220>
<221> misc_feature
<222> (3)..(3)
<223> N= 2'-O-MOE A
<220>
<221> misc_feature
<222> (4)..(4)
<223> N= 2'-O-MOE G
<220>
<221> misc_feature
<222> (5)..(5)
<223> N= 2'-O-MOE A
<220>
<221> misc_feature <222> (16)..(16)
<223> N= 2'-O-MOE 5meU
<220>
<221> misc_feature <222> (17)..(17)
<223> N= 2'-O-MOE 5meC
<220>
<221> misc_feature
<222> (18)..(18)
<223> N= 2'-O-MOE G
<220>
<221> misc feature
<222> (19)..(19)
<223> N= 2'-O-MOE 5meU
```

20

```
<220>
 <221> misc_feature
<222> (20)..(20)
<223> N= L-Cytidine
 <400> 9
nnnnnttcca cactcnnnnn
 <210> 10
 <211> 20
 <212> DNA
 <213> Artificial Sequence
<220>
<223> Completely synthetic sequence
<220>
<221> misc_feature
<222> (1)..(20)
<223> All P=S
<220>
<221> misc_feature
<222> (1)..(1)
<223> N= L-Cytidine
<220>
<221> misc_feature
<222> (2)..(2)
<223> N= 2'-O-MOE 5meU
<220>
<221> misc_feature
<222> (3)..(3)
<223> N= 2'-O-MOE A
<220>
<221> misc_feature
<222> (4)..(4)
<223> N= 2'-O-MOE G
<220>
<221> misc_feature
<222> (5)..(5)
<223> N= 2'-O-MOE A
<220>
<221> misc_feature
<222> (16)..(16)
<223> N= 2'-O-MOE 5meU
<220>
<221> misc_feature
<222> (17)..(17)
<223> N= 2'-O-MOE 5meC
<220>
<221> misc_feature
```

```
<222> (18)..(18)
<223> N= 2'-O-MOE G
<220>
<221> misc_feature
<222> (19)..(19)
<223> N= 2'-O-MOE 5meU
<220>
<221> misc_feature
<222> (20)..(20)
<223> N= L-Cytidine
<400> 10
nnnnnttcca cactcnnnnn
<210> 11
<211> 20
<212> DNA
<213> Artificial Sequence
<220>
<223> Completely synthetic sequence
<220>
<221> misc_feature
<222> (1)..(20)
<223> All P=S
<220>
<221> misc_feature
<222> (10)..(10)
<223> N= 2'-O-MOE 5meC
<220>
<221> misc_feature
<222> (11)..(11)
<223> N= 2'-O-MOE A
<220>
<221> misc_feature
<222> (12)..(13)
<223> N= 2'-O-MOE G
<220>
<221> misc_feature
<222> (14)..(14)
<223> N= 2'-O-MOE 5meU
<220>
<221> misc_feature
<222> (16)..(16)
<223> N= 2'-O-MOE 5meC
<220>
<221> misc_feature
<222> (17)..(18)
<223> N= 2'-O-MOE 5meU
```

20

```
<220>
 <221> misc feature
<222> (19)..(19)
<223> N= 2'-O-MOE 5meC
 <220>
 <221> misc_feature
<222> (20)..(20)
 <223> N= L-Adenosine
 <400> 11
 ccggtacccn nnnntnnnnn
<210> 12
<211> 20
<212> DNA
 <213> Artificial Sequence
 <220>
 <223> Completely synthetic sequence
 <220>
 <221> misc_feature
 <222> (1)..(20)
<223> A11 P=S
 <220>
 <221> misc_feature
<222> (1)..(1)
<223> N= L-Cytidine
<220>
<221> misc_feature
<222> (10)..(10)
<223> N= 2'-O-MOE 5meC
<220>
<221> misc_feature
<222> (11)..(11)
<223> N= 2'-O-MOE A
<220>
<220>
<221> misc_feature
<222> (12)..(13)
<223> N= 2'-O-MOE G
<220>
<221> misc_feature
<222> (14)..(14)
<223> N= 2'-O-MOE 5meU
<220>
<221> misc_feature
<222> (16)..(16)
<223> N= 2'-O-MOE 5meC
<220>
<221> misc_feature
<222> (17)..(18)
<223> N= 2'-O-MOE 5meU
```

```
<220>
<221> misc_feature
<222> (19)..(19)
<223> N= 2'-O-MOE 5meC
<220>
<221> misc_feature
<222> (20)..(20)
<223> N= L-Adenosine
<400> 12
                                                                                             20
ncggtacccn nnnntnnnnn
<210> 13
<211> 20
<212> DNA
<213> Artificial Sequence
<220>
<223> Completely synthetic sequence
<220>
<221> misc_feature
<222> (1)..(20)
<223> All P=S
<220>
<221> misc_feature
<222> (9)..(9)
<223> N= 2'-O-MOE 5meC
<220>
<221> misc_feature
<222> (10)..(10)
<223> N= 2'-O-MOE A
<220>
<221> misc_feature
<222> (11)..(11)
<223> N= 2'-O-MOE 5meC
<220>
<221> misc_feature
<222> (12)..(12)
<223> N= 2'-O-MOE A
<220>
<221> misc_feature
<222> (20)..(20)
<223> N= L-Cytidine
<400> 13
                                                                                             20
ctagattcnn nnctctcgtn
<210> 14
<211> 20
<212> DNA
<213> Artificial Sequence
```

```
<220>
<223> Completely synthetic sequence
<220>
<221> misc_feature
<222> (1)..(20)
<223> All P=S
<220>
<221> misc_feature
<222> (1)..(1)
<223> N= L-Cytidine
<220>
<221> misc feature
<222> (9)..(9)
<223> N= 2'-O-MOE 5meC
<220>
<221> misc_feature
<222> (10) ... (10)
<223> N= 2'-O-MOE A
<220>
<221> misc_feature
<222> (11)..(11)
<223> N= 2'-O-MOE 5meC
<220>
<221> misc_feature
<222> (12)..(12)
<223> N= 2'-O-MOE A
<400> 14
                                                                                                          20
ntagattcnn nnctctcgtc
<210> 15
<211> 20
<212> DNA
<213> Artificial Sequence
<220>
<223> Completely synthetic sequence
<220>
<221> misc_feature
<222> (1)..(20)
<223> A11 P=S
<220>
<221> misc_feature
<222> (1)..(1)
<223> N= L-Cytidine
<220>
<221> misc_feature
<222> (9)..(9)
<223> N= 2'-O-MOE 5meC
```

```
<220>
<221> misc_feature
<222> (10)..(10)
<223> N= 2'-O-MOE A
<220>
<221> misc feature
<222> (11)..(11)
<223> N= 2'-O-MOE 5meC
<220>
<221> misc_feature
<222> (12)..(12)
<223> N= 2'-O-MOE A
<220>
<221> misc_feature
<222> (20)..(20)
<223> N= L-Cytidine
<400> 15
                                                                                                                 20
ntagattonn nnctctcgtn
<210> 16
<211> 20
<212> DNA
<213> Artificial Sequence
<220>
<223> Completely synthetic sequence
<220>
<221> misc_feature
<222> (1)..(20)
<223> All P=S
<220>
<221> misc_feature
<222> (1)..(1)
<223> N= 2,-3'-Dideoxycytidine
<220>
<221> misc_feature
<222> (2)..(2)
<223> N= 2'-O-MOE 5meU
<220>
<221> misc_feature
<222> (3)..(3)
<223> N= 2'-O-MOE A
<220>
<221> misc_feature
<222> (4)..(4)
<223> N= 2'-O-MOE G
<220>
<221> misc_feature
<222> (5)..(5)
<223> N= 2'-O-MOE A
```

```
<220>
<221> misc_feature
<222> (16)..(16)
<223> N= 2'-O-MOE 5meU
<220>
<221> misc feature
<222> (17)..(17)
<223> N= 2'-O-MOE 5meC
<220>
<221> misc_feature
<222> (18)..(18)
<223> N= 2'-O-MOE G
<220>
<221> misc_feature
<222> (19)..(19)
<223> N= 2'-O-MOE 5meU
<220>
<221> misc_feature
<222> (20)..(20)
<223> N= 2, 3'-Dideoxycytidine
<400> 16
nnnnnttcca cactcnnnnn
                                                                                                                    20
<210> 17
<211> 20
<212> DNA
<213> Artificial Sequence
<220>
<223> Completely synthetic sequence
<220>
<221> misc_feature
<222> (1)..(20)
<223> All P=S
<220>
<221> misc_feature
<222> (10)..(10)
<223> N= 2'-O-MOE 5meC
<220>
<221> misc_feature
<222> (11)..(11)
<223> N= 2'-O-MOE A
<220>
<221> misc_feature
<222> (12)..(13)
<223> N= 2'-O-MOE G
<220>
<221> misc_feature
```

```
<222> (14)..(14)
<223> N= 2'-O-MOE 5meU
<220>
<221> misc_feature
<222> (16)..(16)
<223> N= 2'-O-MOE 5meC
<220>
<221> misc_feature
<222> (17)..(18)
<223> N= 2'-O-MOE 5meU
<220>
<221> misc_feature
<222> (19)..(19)
<223> N= 2'-O-MOE 5meC
<220>
<221> misc_feature
<222> (20)..(20)
<223> N= 2',-3'-Dideoxyadenosine
<400> 17
                                                                                                     20
ccggtacccn nnnntnnnn
<210> 18
<211> 20
<212> DNA
<213> Artificial Sequence
<220>
<223> Completely synthetic sequence
<220>
<221> misc_feature
<222> (1)..(20)
<223> All P=S
<220>
<221> misc_feature
<222> (1)..(1)
<223> N= 2'-O-MOE 5meC
<220>
<221> misc_feature
<222> (2)..(2)
<223> N= 2'-O-MOE 5meU
<220>
<221> misc_feature
<222> (3)..(3)
<223> N= 2'-O-MOE A
<220>
<221> misc_feature
<222> (4)..(4)
<223> N= 2'-O-MOE G
```

```
<220>
<221> misc_feature
<222> (5)..(5)
<223> N= 2'-O-MOE A
<220>
<221> misc_feature
<222> (16)..(16)
<223> N= 2'-O-MOE 5meU
<220>
<221> misc_feature
<222> (17)..(17)
<223> N= 2'-O-MOE 5meC
<220>
<221> misc_feature
<222> (18)..(18)
<223> N= 2'-O-MOE G
<220>
<221> misc feature
<222> (19)..(19)
<223> N= 2'-O-MOE 5meU
<220>
<221> misc_feature
<222> (20)..(20)
<223> N= 2'-3'-Didehydro-2', 3'-dideoyxcytidine
<400> 18
nnnnnttcca cactcnnnnn
<210> 19
<211> 20
<211> 20
<212> DNA
<213> Artificial Sequence
<220>
<223> Completely synthetic sequence
<220>
<221> misc_feature
<222> (1). (20)
<223> All P=S
<220>
<221> misc_feature 
<222> (10)..(10)
<223> N= 2'-O-MOE 5meC
<220>
<221> misc_feature 
<222> (11)..(11)
<223> N= 2'-O-MOE A
<220>
<221> misc_feature
<222> (12)..(13)
<223> N= 2'-O-MOE G
```

```
<220>
<221> misc_feature
<222> (14)..(15)
<223> N= 2'-O-MOE 5meU
<220>
<220>
<221> misc feature
<222> (17)..(18)
<223> N= 2'-O-MOE 5meU
<220>
<221> misc_feature
<222> (19)..(19)
<223> N= 2'-O-MOE 5meC
<220>
<221> misc_feature
<222> (20)..(20)
<223> N= 2',-3'-Didehydro-2',3'-dideoxyadenosine
<400> 19
                                                                                               20
ccggtacccn nnnnnnnnn
<210> 20
<211> 20
<212> DNA
<213> Artificial Sequence
<220>
<223> Completely synthetic sequence
<220>
<221> misc_feature
<222> (1). (20)
<223> All P=S
<220>
<221> misc_feature
<222> (1)..(1)
<223> N= 2'-O-MOE 5meC
<220>
 <221> misc_feature
<222> (2)..(2)
<223> N= 2'-O-MOE 5meU
 <220>
<221> misc_feature
<222> (3)..(3)
<223> N= 2'-O-MOE A
 <220>
 <221> misc_feature
```

```
<222> (4)..(4)
<223> N= 2'-O-MOE G
<220>
<221> misc_feature
<222> (5)..(5)
<223> N= 2'-O-MOE A
<220>
<221> misc_feature
<222> (16)..(16)
<223> N= 2'-O-MOE 5meU
<220>
<221> misc_feature
<222> (17)..(17)
<223> N= 2'-O-MOE 5meC
<220>
<221> misc feature
<222> (18)..(18)
<223> N= 2'-O-MOE G
<220>
<221> misc_feature
<222> (19)..(19)
<223> N= 2'-O-MOE 5meU
<220>
<221> misc_feature
<222> (20)..(20)
<223> N= 2'-3'-Dideoxy-3'-fluorocytidine
<400> 20
                                                                                                       20
nnnnnttcca cactcnnnnn
<210> 21
<211> 20
<212> DNA
<213> Artificial Sequence
<220>
<223> Completely synthetic sequence
<220>
<221> misc_feature <222> (1)..(20)
<223> All P=S
<220>
<221> misc_feature
<222> (1)..(1)
<223> N= 2'-O-MOE 5meC
<220>
<221> misc_feature
<222> (2)..(2)
<223> N= 2'-O-MOE 5meU
```

```
<220>
<221> misc_feature
<222> (3)..(3)
<223> N= 2'-O-MOE A
<220>
<221> misc_feature
<222> (4)..(4)
<223> N= 2'-O-MOE G
<220>
<221> misc_feature
<222> (5)..(5)
<223> N= 2'-O-MOE A
<220>
<221> misc feature
<222> (16)..(16)
<223> N= 2'-O-MOE 5meU
<220>
<221> misc_feature
<222> (17)..(17)
<223> N= 2'-O-MOE 5meC
<220>
<221> misc feature
<222> (18)..(18)
<223> N= 2'-O-MOE G
<220>
<221> misc_feature
<222> (19)..(19)
<223> N= 2'-O-MOE 5meU
<220>

<221> misc_feature
<222> (20)..(20)
<223> N= 3'-Deoxy-2'-O-[2-(methoxy)ethy1]-5-methy1cytidine

<400> 21
                                                                                                                   20
nnnnnttcca cactcnnnnn
<210> 22
<211> 20
<212> DNA
<213> Artificial Sequence
<220>
<223> Completely synthetic sequence
<220>
<221> misc_feature
<222> (1)..(20)
<223> All P=S
<220>
<221> misc_feature
<222> (1)..(1)
<223> N= 2'-O-MOE 5meC
```

```
<220>
<221> misc_feature
<222> (2)..(2)
<223> N= 2'-0-MOE 5meU
<220>
<221> misc_feature
<222> (3)..(3)
<223> N= 2'-O-MOE A
<220>
<221> misc_feature
<222> (4)..(4)
<223> N= 2'-O-MOE G
<220>
<221> misc_feature
<222> (5)..(5)
<223> N= 2'-O-MOE A
<220>
<221> misc_feature
<222> (16)..(16)
<223> N= 2'-O-MOE 5meU
<220>
<221> misc_feature
<222> (17)..(17)
<223> N= 2'-O-MOE 5meC
<220>
<221> misc_feature
<222> (18)..(18)
<223> N= 2'-O-MOE G
<220>
<221> misc_feature
<222> (19)..(19)
<223> N= 2'-O-MOE 5meU
<220>
<221> misc_feature
<222>
         (20)..(20)
<223> N= 3-hydroxy-2-pyrrolidinemethano1
<400> 22
nnnnnttcca cactcnnnnn
                                                                                               20
<210> 23
<211>
        21
<212> DNA
<213> Artificial Sequence
<220>
<223> Completely synthetic sequence
<220>
<221> misc_feature
```

```
<222> (1)..(21)
<223> A11 P=S
<220>
<221> misc_feature
<222> (1)..(1)
<223> N= 3-hydroxy-2-pyrrolidinemethanol
<220>
<221> misc_feature
<222> (2)..(2)
<223> N= 2'-O-MOE 5meC
<220>
<221> misc_feature
<222> (3)..(3)
<223> N= 2'-O-MOE 5meU
<220>
<221> misc_feature <222> (4)..(4)
<223> N= 2'-O-MOE A
<220>
<221> misc_feature
<222> (5)..(5)
<223> N= 2'-O-MOE G
<220>
<221> misc_feature
<222> (6)..(6)
<223> N= 2'-O-MOE A
<220>
<221> misc_feature
<222> (17)..(17)
<223> N= 2'-O-MOE 5meU
<220>
<221> misc_feature
<222> (18)..(18)
<223> N= 2'-O-MOE 5meC
<220>
<221> misc_feature
<222> (19)..(19)
<223> N= 2'-O-MOE G
<220>
<221> misc_feature
<222> (20)..(20)
<223> N= 2'-O-MOE 5meU
<220>
<221> misc_feature
<222> (21)..(21)
<223> N= 3-hydroxy-2-pyrrolidinemethano1
```

```
<400> 23
                                                                                                                     21
nnnnnnttcc acactcnnnn n
<210> 24
<211> 21
<212> DNA
<213> Artificial Sequence
<220>
<223> Completely synthetic sequence
<220>
<221> misc_feature
<222> (1)..(21)
<223> All P=S
<220>
<221> misc_feature
<222> (10)..(10)
<223> N= 2'-O-MOE 5meC
<220>
<221> misc feature
<222> (11)..(11)
<223> N= 2'-O-MOE A
<220>
<221> misc_feature
<222> (12)..(13)
<223> N= 2'-O-MOE G
<220>
<221> misc_feature
<222> (14)..(15)
<223> N= 2'-O-MOE 5meU
<220>
<221> misc_feature
<222> (16)..(16)
<223> N= 2'-O-MOE 5meC
<220>
<221> misc_feature
<222> (17)..(18)
<223> N= 2'-O-MOE 5meU
<220>
<221> misc_feature
<222> (19)..(19)
<223> N= 2'-O-MOE 5meC
<220>
<221> misc_feature
 <222>
           (21)...(21)
 <223> N= 3-hydroxy-2-pyrrolidinemethanol
<400> 24
                                                                                                                      21
 ccggtacccn nnnnnnnnn n
```

```
<210> 25
<211> 22
<212> DNA
<213> Artificial Sequence
<220>
<223> Completely synthetic sequence
<220>
<221> misc_feature <222> (1)..(22)
<223> A11 P=S
<220>
<221> misc_feature <222> (1)..(1)
<223> N= 3-hydroxy-2-pyrrolidinemethanol
<220>
<221> misc_feature
<222> (11)..(11)
<223> N= 2'-O-MOE 5meC
<220>
<221> misc_feature
<222> (12)..(12)
<223> N= 2'-O-MOE A
<220>
<221> misc feature
<222> (13)..(14)
<223> N= 2'-O-MOE G
<220>
<221> misc_feature
<222> (15)..(16)
<223> N= 2'-O-MOE 5 meU
<220>
<221> misc_feature
<222> (17)..(17)
<223> N= 2'-O-MOE 5 meC
<220>
<221> misc_feature
<222> (18)..(19)
<223> N= 2'-O-MOE 5 meU
<220>
<221> misc_feature
<222> (20)..(20)
<223> N= 2'-O-MOE 5 meC
<220>
<221> misc_feature
<222> (22)..(22)
<223> N= 3-hydroxy-2-pyrrolidinemethanol
<400> 25
nccggtaccc nnnnnnnnnn an
```

```
<210>
         26
<211>
         20
<212> DNA
<213> Artificial Sequence
<220>
<223> Completely synthetic sequence
<220>
<221> misc_feature
<222> (1)..(20)
<223> All P=S
<220>
<221> misc_feature
<222> (1)..(1)
<223> N= 2'-O-MOE 5meC
<220>
<221> misc_feature
<222> (2)..(2)
<223> N= 2'-O-MOE 5meU
<220>
<221> misc_feature
<222> (3)..(3)
<223> N= 2'-O-MOE A
<220>
<221> misc_feature
<222> (4)..(4)
<223> N= 2'-O-MOE G
<220>
<221> misc_feature
<222> (5)..(5)
<223> N= 2'-O-MOE A
<220>
<221> misc_feature
<222> (16)...(16)
<223> N= 2'-O-MOE 5meU
<220>
<221> misc_feature
<222> (17)..(17)
<223> N= 2'-O-MOE 5meC
<220>
<221> misc_feature
<222> (18)..(18)
<223> N= 2'-O-MOE G
<220>
<221> misc_feature
<222> (19)..(19)
<223> N= 2'-O-MOE 5meU
```

20

```
<220>
<221> misc_feature <222> (20)..(20)
         N=1-[2-hydroxy-1-[2-hydroxy-1-
<223>
          (hydroxymethyl) ethoxy]ethylcytosine
<400> 26
nnnnttcca cactcnnnnn
<210> 27
<211>
        20
<212> DNA
<213> Artificial Sequence
<220>
<223> Completely synthetic sequence
<220>
<221> misc_feature
<222> (1)..(20)
<223> A11 P=S
<220>
<221> misc_feature
<222> (1)..(1)
<223> N= 1-[2-hydroxy-1-[2-hydroxy-1-
         (hydroxymethyl)ethoxy]ethylcytosine
<220>
<221> misc_feature
<222> (2)..(2)
<223> N= 2'-O-MOE 5meU
<220>
<221> misc_feature
<222> (3)..(3)
<223> N= 2'-O-MOE A
<220>
<221> misc_feature
<222> (4)..(4)
<223> N= 2'-O-MOE G
<220>
<221> misc_feature
<222> (5)..(5)
<223> N= 2'-O-MOE A
<220>
<221> misc_feature
<222> (16)..(16)
<223> N= 2'-O-MOE 5meU
<220>
<221> misc_feature
<222> (17)..(17)
<223> N= 2'-O-MOE 5meC
<220>
<221> misc_feature
```

ISIS4804.ST25.txt <222> (18)..(18) <223> N= 2'-O-MOE G <220> <221> misc_feature <222> (19)..(19) <223> N= 2'-O-MOE 5meU <220> <221> misc_feature <222> (20) ... (20) <223> N= 1-[2-hydroxy-1-[2-hydroxy-1-(hydroxymethyl)ethoxy]ethylcytosine <400> 27 nnnnnttcca cactcnnnnn <210> 28 <211> 20 <212> DNA <213> Artificial Sequence <220> <223> Completely synthetic sequence <220> <221> misc_feature <222> (1)..(20) <223> All P=S <220> <221> misc_feature <222> (1)..(1) <223> N= 2'-O-MOE 5meC

```
<221> misc_feature
<222> (2)..(2)
<223> N= 2'-O-MOE 5meU

<220>
<221> misc_feature
<222> (3)..(3)
<223> N= 2'-O-MOE A

<220>
<221> misc_feature
<222> (4)..(4)
<223> N= 2'-O-MOE G

<220>
<221> misc_feature
<222> (5)..(5)
<223> N= 2'-O-MOE A
```

<220>

Page 25

```
<220>
<221> misc_feature
<222> (17)..(17)
<223> N= 2'-O-MOE 5meC
<220>
<221> misc_feature
<222> (18)..(18)
<223> N= 2'-O-MOE G
<220>
<221> misc_feature
<222> (19)..(19)
<223> N= 2'-O-MOE 5meU
<220>
<221> misc_feature
         (20)..(20)
N= 1-[2-hydroxy-1-[2-hydroxy-1-
<222>
<223>
         (hydroxymethyl) ethoxy] ethylcytosine
<400> 28
nnnnttcca cactcnnnnn
                                                                                             20
<210> 29
<211> 20
<212> DNA
<213> Artificial Sequence
<220>
<223> Completely synthetic sequence
<220>
<221> misc_feature
<222> (1)..(20)
<223> All P=S
<220>
<221> misc_feature
<222> (1)..(1)
<223> N= 1-[2-hydroxy-1-[2-hydroxy-1-
         (hydroxymethyl) ethoxy] ethylcytosine
<220>
<221> misc_feature
<222> (2)..(2)
<223> N= 2'-O-MOE 5meU
<220>
<221> misc_feature
<222> (3)..(3)
<223> N= 2'-O-MOE A
<220>
<221> misc feature
<222> (4)..(4)
<223> N= 2'-O-MOE G
```

Page 26

<220>

```
<221> misc_feature
<222> (5)..(5)
<223> N= 2'-O-MOE A
<220>
<221> misc_feature
<222> (16)..(16)
<223> N= 2'-O-MOE 5meU
<220>
<221> misc_feature
<222> (17)..(17)
<223> N= 2'-O-MOE 5meC
<220>
<221> misc_feature
<222> (18)..(18)
<223> N= 2'-O-MOE G
<220>
<221> misc_feature
<222> (19)..(19)
<223> N= 2'-O-MOE 5meU
<220>
<221> misc_feature
<222> (20)..(20)
<223> N= 1-[2-hydroxy-1-[2-hydroxy-1-
           (hydroxymethyl) ethoxylethylcytosine
<400> 29
nnnnnttcca cactennnnn
<210> 30
<211> 20
<212> DNA
<213> Artificial Sequence
<220>
<223> Completely synthetic sequence
<220>
<221> misc_feature
<222> (1)..(20)
<223> A11 P=S
<220>
<221> misc feature
<222> (1)..(1)
<223> N= 2'-O-MOE 5meC
<220>
<221> misc_feature
<222> (2)..(2)
<223> N= 2'-O-MOE 5meU
<220>
<221> misc_feature <222> (3)..(3)
<222> (3)..(3)
<223> N= 2'-O-MOE A
```

Page 27

```
<220>
<221> misc_feature
<222> (4)..(4)
<223> N= 2'-O-MOE G
<220>
<221> misc_feature
<222> (5)..(5)
<223> N= 2'-O-MOE A
<220>
<221> misc_feature
<222> (16)..(16)
<223> N= 2'-O-MOE 5meU
<220>
<221> misc_feature
<222> (17)...(17)
<223> N= 2'-O-MOE 5meC
<220>
<221> misc_feature
<222> (18)..(18)
<223> N= 2'-O-MOE G
<220>
<221> misc_feature
<222> (19)..(19)
<223> N= 2'-O-MOE 5meU
<220>
<221> misc_feature
<222> (20)..(20)
<223> N= 2', 3'-dideoxy-3'-(amino) cytidine
<400> 30
nnnnttcca cactennnnn
                                                                                          20
<210> 31
<211> 20
<212> DNA
<213> Artificial Sequence
<220>
<223> Completely synthetic sequence
<220>
<221> misc_feature
<222>
        (1)..(20)
<223> A11 P=S
<220>
<221> misc feature
<222> (1)..(1)
<223> N= 2'-O-MOE 5meC
<220>
<221> misc_feature
```

```
<222> (2)..(2)
<223> N= 2'-O-MOE 5meU
<220>
<221> misc_feature
<222> (3)..(3)
<223> N= 2'-O-MOE A
<220>
<221> misc_feature
<222> (4)..(4)
<223> N= 2'-O-MOE G
<220>
<221> misc_feature
<222> (5)..(5)
<223> N= 2'-O-MOE A
<220>
<221> misc_feature
<222> (16)...(16)
<223> N= 2'-O-MOE 5meU
<220>
<221> misc_feature
<222> (17)..(17)
<223> N= 2'-O-MOE 5meC
<220>
<221> misc_feature
<222> (18)..(18)
<223> N= 2'-O-MOE G
<220>
<221> misc feature
<222> (19)..(19)
<223> N= 2'-O-MOE 5meU
<220>
<221> misc_feature
<222> (20)..(20)
<223> N= 2'-deoxy-3'-S-pheny1-3'-thiocytidine
<400> 31
nnnnnttcca cactcnnnnn
                                                                                                  20
<210> 32
<211>
         20
<212> DNA
<213> Artificial Sequence
<220>
<223> Completely synthetic sequence
<220>
<221> misc_feature
<222> (1)..(20)
<223> A11 P=S
```

```
<220>
<221> misc_feature
<222> (1)..(1)
<223> N= 2'-O-MOE 5meC
<220>
<221> misc_feature
<222> (2)..(2)
<223> N= 2'-O-MOE 5meU
<220>
<221> misc_feature
<222> (3)..(3)
<223> N= 2'-O-MOE A
<220>
<221> misc_feature
<222> (4)..(4)
<223> N= 2'-O-MOE G
<220>
<221> misc_feature
<222> (5)..(5)
<223> N= 2'-O-MOE A
<220>
<221> misc feature
<222> (16)..(16)
<223> N= 2'-O-MOE 5meU
<220>
<221> misc_feature
<222> (17)..(17)
<223> N= 2'-O-MOE 5meC
<220>
<221> misc_feature
<222> (18)..(18)
<223> N= 2'-O-MOE G
<220>
<221> misc_feature
<222> (19)..(19)
<223> N= 2'-O-MOE 5meU
<220>
<221> misc_feature
<222> (20)..(20)
<223> N= 3'-deoxy-2'-S-phenyl-2'-thiocytidine
<400> 32
                                                                                                               20
nnnnnttcca cactennnnn
<210> 33
<211> 20
<212> DNA
<213> Artificial Sequence
<220>
```

```
<223> Completely synthetic sequence
<220>
<221> misc_feature
<222> (1)..(20)
<223> All P=S
<220>
<221> misc feature
<222> (1)..(1)
<223> N= 2'-O-MOE 5meC
<220>
<221> misc feature
<222> (2)..(2)
<223> N= 2'-O-MOE 5meU
<220>
<221> misc_feature
<222> (3)..(3)
<223> N= 2'-O-MOE A
<220>
<221> misc_feature
<222> (4)..(4)
<223> N= 2'-O-MOE G
<220>
<221> misc_feature
<222> (5)..(5)
<223> N= 2'-O-MOE A
<220>
<221> misc feature
<222> (16)..(16)
<223> N= 2'-O-MOE 5meU
<220>
<221> misc_feature
<222> (17)..(17)
<223> N= 2'-O-MOE 5meC
<220>
<221> misc_feature
<222> (18)..(18)
<223> N= 2'-O-MOE G
<220>
<221> misc_feature
<222> (19)..(19)
<223> N= 2'-O-MOE 5meU
<220>
<221>
          misc_feature
<222>
           (20) ... (20)
<223>
          N= 1[2,3-deoxy-2-N-morpholino
           -B-D-gylcero-pent-2-enofuranosyl]
           cytosine
```

	ISIS4804.ST25.txt	
<400>	33	
nnnnnt	tcca cactcnnnnn	20
<210>		
<211>		
<212>		
<213>	Artificial Sequence	
<220>		
<223>	Completely synthetic sequence	
(000)		
<220>	ming feeture	
	misc_feature (5)(5)	
	2'-0-hexylquanidinyl-U 5me	
\2237	2 O-Mexylgdallidiny1-0 Sme	
<400>	34	
ttttnt		10
<210>	35	
<211>	10	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Completely synthetic sequence	

<220>	ming feature	
	misc_feature (5)(5)	
	N= 2'-deoxy-G-clamp	
\ZZ 3/	N- 2 - deoxy 6 cramp	
<400>	35	
<400>		10
		10
tctcnc	etctc	10
<210>	36	10
<210><211>	36 10	10
<210><211><212>	36 10 DNA	10
<210><211><212>	36 10	10
<210> <211> <212> <213>	36 10 DNA	10
<210> <211> <212> <213> <220>	36 10 DNA Artificial Sequence	10
<210> <211> <212> <213> <220>	36 10 DNA	10
<210> <211> <212> <213> <223>	36 10 DNA Artificial Sequence	10
<210> <211> <212> <213> <223> <220> <223>	36 10 DNA Artificial Sequence Completely synthetic sequence	10
<210> <211> <212> <213> <223> <223> <221>	36 10 DNA Artificial Sequence Completely synthetic sequence misc feature	10
<210> <211> <212> <213> <213> <220> <223> <221> <220> <223>	36 10 DNA Artificial Sequence Completely synthetic sequence misc_feature (5)(5)	10
<210> <211> <212> <213> <213> <220> <223> <221> <220> <223>	36 10 DNA Artificial Sequence Completely synthetic sequence misc feature	10
<210> <211> <212> <213> <213> <220> <223> <221> <220> <223>	36 10 DNA Artificial Sequence Completely synthetic sequence misc_feature (5)(5)	10
<210> <211> <212> <213> <213> <220> <223> <221> <220> <223>	36 10 DNA Artificial Sequence Completely synthetic sequence misc_feature (5)(5)	
<210> <211> <212> <213> <223> <223> <223> <223>	36 10 DNA Artificial Sequence Completely synthetic sequence misc_feature (5)(5) N= 2'-deoxy-guanidiny1 G-clamp 36	10
<210> <211> <212> <213> <223> <223> <223> <400>	36 10 DNA Artificial Sequence Completely synthetic sequence misc_feature (5)(5) N= 2'-deoxy-guanidiny1 G-clamp 36	
<210> <211> <212> <213> <213> <220> <223> <220> <223> <400> <21> <21> <220> <221> <221> <220> <221> <220> <221> <220> <221> <220> <221> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220 <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <220> <2	36 10 DNA Artificial Sequence Completely synthetic sequence misc_feature (5)(5) N= 2'-deoxy-guanidinyl G-clamp 36 etete	
<210> <211> <212> <213> <213> <220> <223> <220> <223> <221> <221> <221> <221> <221> <221> <221> <221> <221> <221> <221> <221> <221> <221> <221> <221> <221> <221> <221> <221> <221> <221> <221> <221> <221> <221> <221> <221> <221> <221> <221> <221> <221> <221> <221> <221> <221> <221> <221> <221> <221> <221> <221> <221> <221> <221> <221> <221> <221> <221> <221> <221 2</td <td>36 10 DNA Artificial Sequence Completely synthetic sequence misc_feature (5)(5) N= 2'-deoxy-guanidiny1 G-clamp 36 etete</td> <td></td>	36 10 DNA Artificial Sequence Completely synthetic sequence misc_feature (5)(5) N= 2'-deoxy-guanidiny1 G-clamp 36 etete	
<210> <211> <212> <213> <223> <223> <223> <221> <221> <221> <221> <221> <221> <221> <221> <221>	36 10 DNA Artificial Sequence Completely synthetic sequence misc_feature (5)(5) N= 2'-deoxy-guanidiny1 G-clamp 36 etete	
<210> <211> <212> <213> <220> <223> <223> <400> <221> <221> <222> <221> <222>	36 10 DNA Artificial Sequence Completely synthetic sequence misc_feature (5)(5) N= 2'-deoxy-guanidinyl G-clamp 36 ctctc 37 18 DNA	
<210> <211> <212> <213> <223> <223> <223> <221> <221> <221> <221> <221> <221> <221> <221> <221>	36 10 DNA Artificial Sequence Completely synthetic sequence misc_feature (5)(5) N= 2'-deoxy-guanidiny1 G-clamp 36 etete	
<210> <211> <212> <213> <223> <223> <220> <223> <221> <221> <222> <221> <222> <223>	36 10 DNA Artificial Sequence Completely synthetic sequence misc_feature (5)(5) N= 2'-deoxy-guanidinyl G-clamp 36 ctctc 37 18 DNA	
<pre> <210> <211> <212> <213> <223> <223> <220> <223> <221> <222> <223> <400> tctcnc <210> <211> <212> <213> </pre>	36 10 DNA Artificial Sequence Completely synthetic sequence misc_feature (5)(5) N= 2'-deoxy-guanidinyl G-clamp 36 etete 37 18 DNA Artificial Sequence	
<210> <211> <212> <213> <223> <223> <220> <223> <221> <221> <222> <221> <222> <223>	36 10 DNA Artificial Sequence Completely synthetic sequence misc_feature (5)(5) N= 2'-deoxy-guanidinyl G-clamp 36 ctctc 37 18 DNA	
<210> <211> <212> <213> <223> <223> <220> <223> <221> <221> <221> <221> <221> <222> <223> <223>	36 10 DNA Artificial Sequence Completely synthetic sequence misc_feature (5)(5) N= 2'-deoxy-guanidinyl G-clamp 36 etete 37 18 DNA Artificial Sequence	
<pre> <210> <211> <212> <213> <220> <223> <223> <400> <221> <222> <223> <400> <211> <212> <213> </pre>	36 10 DNA Artificial Sequence Completely synthetic sequence misc_feature (5)(5) N= 2'-deoxy-guanidinyl G-clamp 36 ctctc 37 18 DNA Artificial Sequence Completely synthetic sequence	
<210> <211> <212> <213> <223> <223> <220> <223> <221> <221> <221> <221> <221> <222> <223> <223>	36 10 DNA Artificial Sequence Completely synthetic sequence misc_feature (5)(5) N= 2'-deoxy-guanidiny1 G-clamp 36 etctc 37 18 DNA Artificial Sequence Completely synthetic sequence misc_feature	
<pre> <210> <211> <212> <213> <220> <223> <223> <220> <221> <221> <222> <223> </pre> <pre> <400> tctcnc <210> <211> <212> <213> <220> <221> <223> </pre>	36 10 DNA Artificial Sequence Completely synthetic sequence misc_feature (5)(5) N= 2'-deoxy-guanidinyl G-clamp 36 etctc 37 18 DNA Artificial Sequence Completely synthetic sequence misc_feature (9)(9)	

<400> 37 ctcgtaccnt cccggtcc	18
<210> 38 <211> 10 <212> DNA <213> Artificial Sequence	
<220> <223> Completely synthetic sequence	
<pre><220> <221> misc_feature <222> (2)(2) <223> N= 2'-deoxy-guanidino G-clamp</pre>	
<220> <221> misc_feature <222> (6)(6) <223> N= 2'-MOE-U 5me	
<400> 38 gngtanacgc	10
<210> 39 <211> 10 <212> DNA <213> Artificial Sequence	
<220> <223> Completely synthetic sequence	
<220> <221> misc_feature <222> (6)(6) <223> N= 2'-MOE- U 5me	
<220> <221> misc_feature <222> (8)(8) <223> N= 2'-deoxy-guanidino G-clamp	
<400> 39 gcgtanangc	10
<210> 40 <211> 15 <212> DNA <213> Artificial Sequence	
<220> <223> Completely synthetic sequence	
<400> 40 aaaaagagag ggaga	15
<210> 41 <211> 10 <212> DNA <213> Artificial Sequence	

```
<220>
<223>
      Completely synthetic sequence
<220>
<221> misc_feature
<222> (2)..(2)
<223> N= guanidino G-clamp
<220>
<221> misc_feature
<222> (6). (6)
<223> N= 2'-O-methoxyethyl thymine
<400> 41
gngtanacgc
                                                                         10
<210> 42
<211> 20
<212> DNA
<213> Artificial Sequence
<220>
<223> Completely synthetic sequence
<220>
<221> misc_feature
<222> (1)..(20)
<223> All P=S
<400> 42
atgcattctg cccccaagga
                                                                         20
<210>
      43
<211> 20
<212> DNA
<213> Artificial Sequence
<220>
<223> Completely synthetic sequence
<220>
<221> misc_feature <222> (1)..(20)
<223> All P=S
<220>
<221> misc feature
<222> (4)..(4)
<223> N= G-clamp modification
<400> 43
                                                                         20
atgnattctg ccccaagga
<210> 44
<211> 20
<212>
      DNA
<213> Artificial Sequence
<220>
<223> Completely synthetic sequence
```

```
<220>
<221> misc_feature
<222> (1)..(20)
<223> All P=S
<220>
<221> misc_feature
<222> (8)..(8)
<223> N= G-clamp modification
<400> 44
                                                                            20
atgcattntg cccccaagga
<210>
       45
<211>
       20
<212> DNA
<213> Artificial Sequence
<220>
<223> Completely synthetic sequence
<220>
<221> misc_feature
<222>
       (1)..(20)
<223> All P=S
<220>
<221> misc_feature <222> (11)..(11)
<223> N= G-clamp modification
<400> 45
                                                                             20
atgcattctg nccccaagga
<210> 46
<211> 20
<212> DNA
<213> Artificial Sequence
<220>
<223> Completely synthetic sequence
<220>
<221> misc_feature
<222> (1)..(20)
<223> All P=S
<220>
 <221> misc_feature
 <222>
       (12)^{-}.(12)
<223> N= G-clamp modification
 <400> 46
                                                                             20
atgcattctg cncccaagga
 <210> 47
 <211> 20
 <212>
       DNA
 <213> Artificial Sequence
 <220>
```

```
ISIS4804.ST25.txt
<223> Completely synthetic sequence
<220>
<221> misc_feature
<222> (1)..(20)
<223> All P=S
<220>
<221> misc_feature <222> (13)..(13)
<223> N= G-clamp modification
<400> 47
                                                                                  20
atgcattctg ccnccaagga
<210> 48
<211> 20
<212> DNA
<213> Artificial Sequence
<220>
<223> Completely synthetic sequence
<220>
<221> misc_feature
<222> (1)..(20)
<223> All P=S
<220>
<221> misc feature
<222> (14)..(14)
<223> N= G-clamp modification
<400> 48
                                                                                  20
atgcattctg cccncaagga
<210> 49
<211> 20
<212> DNA
<213> Artificial Sequence
<220>
<223> Completely synthetic sequence
<220>
<221> misc_feature
<222> (1)..(20)
<223> All P=S
<220>
<221> misc_feature
        (15)^{-}. (15)
<222>
<223> N= G-clamp modification
<400> 49
                                                                                   20
atgcattctg ccccnaagga
```

Page 36

<210> 50 <211> 22

<212> DNA <213> Artificial Sequence

<220> <223>	Completely synthetic sequence	
<400> ctagat	50 toca cactototog to	22
<210><211><211><212><213>	20	
<220> <223>	Completely synthetic sequence	
<222>	<pre>misc_feature (1)(1) N= G-clamp modification</pre>	
<400> ntagat	51 :tcca cactctcgtc	20
<210><211><211><212><213>	20	
<220> <223>	Completely synthetic sequence	
<222>	<pre>misc_feature (20)(20) N= G-clamp modification</pre>	
<400> ctagat	52 ttcca cactctcgtn	20
<210> <211> <212> <213>	20	
<220> <223>	Completely synthetic sequence	
<222>	<pre>misc_feature (1)(1) N= G-clamp modification</pre>	
<222>	<pre>misc_feature (20)(20) N= G-clamp modification</pre>	
<400> ntaga	53 ttcca cactctcgtn	20
<210> <211>		

<212> <213>	DNA Artificial Sequence	1S1S4804.ST25.txt	
<220> <223>	Completely synthetic sequence		
<222>	<pre>misc_feature (19)(19) N= phenoxazine</pre>		
<400> tttttt	54 ettt tttttttn		19
<210> <211> <212> <213>	19		
<220> <223>	Completely synthetic sequence		
<222>	misc_feature (19)(19) N= G-clamp modification		
<400> tttttt	55 ttt tttttttn		19